

Special Issue

Hybrid Photovoltaic-Thermal (PVT) Applications

Message from the Guest Editors

Photovoltaic (PV) and photo-thermal (PT) systems are important technologies in addressing the growing requirement for renewable energy. Coupling PT and PV technologies into hybridised photovoltaic/thermal (PVT) systems can offer an effective approach to the minimization of energy losses and enhanced solar energy conversion efficiencies. For large-scale implementation, PVT systems require thermal fluids that can enhance the combined conversion efficiency achievable by controlling the “thermal” and “electrical” components of the solar spectrum. Partitioning the two solar spectrum components through spectral beam splitting (SBS), whereby a liquid optical filter serves as both a spectral modulator and heat transfer fluid, can be achieved through the dynamic control of light-matter interactions within the fluid. This Special Issue aims to present the recent advances in hybrid photovoltaic-thermal (PVT) applications from both theoretical and experimental perspectives, in which liquid beam splitters and filters play a major role.

Guest Editors

Prof. Dr. John Doran

School of Physics & Clinical & Optometric Sciences, Technological University of Dublin, City Campus, Kevin Street, D08NF82 Dublin, Ireland

Dr. George Amarandei

School of Physics & Clinical & Optometric Sciences, Technological University of Dublin, City Campus, Kevin Street, D08NF82 Dublin, Ireland

Deadline for manuscript submissions

closed (20 December 2021)



Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



mdpi.com/si/83040

Energies
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
energies@mdpi.com

[mdpi.com/journal/
energies](https://mdpi.com/journal/energies)





Energies

an Open Access Journal
by MDPI

Impact Factor 3.2
CiteScore 7.3



[mdpi.com/journal/
energies](https://mdpi.com/journal/energies)



About the Journal

Message from the Editor-in-Chief

Energies is an international, open access journal in energy engineering and research. The journal publishes original papers, review articles, technical notes, and letters. Authors are encouraged to submit manuscripts which bridge the gaps between research, development and implementation. The journal provides a forum for information on research, innovation, and demonstration in the areas of energy conversion and conservation, the optimal use of energy resources, optimization of energy processes, mitigation of environmental pollutants, and sustainable energy systems.

Editor-in-Chief

Prof. Dr. Enrico Sciubba
Department of Mechanical and Industrial Engineering, University
Niccolò Cusano, 00166 Roma, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, RePEc, Inspec, CAPlus / SciFinder, and other databases.

Journal Rank:

CiteScore - Q1 (Control and Optimization)